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DERWENT-WEEK: 200342

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TITLE: Wafer holding device and ionized metal plasma apparatus
using the same

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PATENT-FAMILY:

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APPLICATION-DATA:

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ABSTRACTED-PUB-NO: KR2002061878A

BASIC-ABSTRACT:

NOVELTY - A wafer holding device is provided which reduces problems caused by fragments generated when the edge of a wafer is collided with a metal film formed on a ring shaped protrusion part formed on a guide ring, and an ionized metal plasma apparatus using the wafer holding device is provided.

DETAILED DESCRIPTION - The wafer holding device comprises a wafer chuck(220) to which a wafer is removably attached; a lift pin(222) which is installed at the upper surface central part of the wafer chuck(220) to ascend or descend the wafer; a driver(223) for controlling ascending or descending of the lift pin(222); and a guide ring(230) which is installed at the upper surface edge of the wafer chuck(220), and on which a ring shaped protrusion part(232) limiting flow of the wafer is formed, wherein the guide ring(230) comprises a groove(240) which is formed at the inner circumferential side of the ring shaped protrusion part(232). The ionized metal plasma apparatus comprises a target(260) which is installed inside a vacuum chamber(280) and consisted of a metallic material to be deposited on the wafer; a high frequency coil(270) which is installed at the lower part of the target(260) to ionize metal atoms sputtered from the target(260); a wafer holding device(200) on which the wafer is put; and a power supply part(290) for impressing RF power to the wafer chuck(220) to improve straightness of the ionized metal atoms by generating potential difference with a DC magnetron(265), wherein the wafer holding device(200) comprises a wafer chuck(220) to which a wafer is removably attached; a lift pin(222) which is installed at the upper surface central part of the wafer chuck(220) to ascend or descend the wafer; a driver(223) for controlling ascending or descending of the lift pin(222); and a guide ring(230) which is installed at the upper surface edge of the wafer chuck(220), and on which a ring shaped protrusion part(232) limiting flow of the wafer is formed, wherein the guide ring(230) comprises a groove(240) which is formed at the inner circumferential side of the ring shaped protrusion part(232).

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: WAFER HOLD DEVICE IONISE METAL PLASMA APPARATUS

DERWENT-CLASS: U11

